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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,588	02/14/2002	King-Yin Wang	3313-0486P-SP	4313
2292	7590	04/14/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			KIM, KEVIN	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/073,588

Applicant(s)

WANG ET AL.

Examiner

Kevin Y Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-9 is/are rejected.
- 7) ☒ Claim(s) 1-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-8 are objected to because of the following informalities:

1) In Claim 1, line 8, “two A/D (Analog-to-Digital) converter” should be changed to -- two A/D (Analog-to-Digital) converters— since it is plural. Likewise, “the A/D converter” on line 11 should be changed to --the A/D converters--. “signals” on line 11 apparently refer back to “the analog RF signal and the central level signal.” For better readability, it should be changed to --the signals--.

2) In Claim 4, line 6, “the signal” should be changed to --a signal—since there is no antecedent.

3) In Claim 5, lines 7-18, “the sampled signal in the A/D converters” would be better written as “the sampled signals from the A/D converters” for the sake of better readability since it refers to the signals sampled by the A/D converters.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

1) Claim 5 recites “two A/D converters sampling the analog RF signal and the sample points are before and after the digital sliced signal triggers.” However, the specification fails to describe the sampling points being “before and after the digital sliced signal triggers.”

2) Claim 9 is drafted as drawn to a “signal jitter correction method” and is apparently based on a description of Fig.8 of the drawings at page 9. However, this part of the specification fails to describe what it is that was invented and what it does, particularly in connection with the rest of the specification. For instance, the step 801 is described to set “initial values of a delta of the wander compensation” and “an offset” among other things. But the application fails to explain what “a delta of the wander compensation” and the implication of adding or subtracting “Offset” to RF. Step 806 is described to compute the signal jitter “in a statistical way” but fails to define what “a statistical way” is. Nor is explained the significance of step 807 that “determines whether the result falls within the range of times.” Note that no specific value for “the range of times” is given, thus failing to teach an appropriate number of times. Furthermore, there is no explanation why this step is required in the first place.

More importantly, the disclosure fails to teach how these steps illustrated and described are related to the jitter correction.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) Claim 5 calls for “two A/D converters sampling the analog RF signal and the sample points are before and after the digital sliced signal triggers.” However, in this limitation “**the** digital sliced signal triggers” (emphasis added) are neither recited earlier nor self-evident, rendering the claim indefinite as to the scope of the claim.

2) Claim 9 recites “setting a range of wander compensation, a range of number of times, and initial values of the wander value and the number of times.” It implies that when “a range of number of times” and “the number of times” are set, a certain function is performed within “a range of number of times” or for “the number of times.” But the claim fails to define what is performed in connection with the set number of times.

The claim is drawn to a signal **jitter** correction method according to the preamble (emphasis added) and the claim concludes with the recitation of “a voltage variation.” It appears that the voltage variation of a signal is jitter, and, if that is the case, the use of two different terms for a same entity is confusing.

The term “the smallest signal jitters” have no positive antecedent basis although it is understood as the smallest one of a plurality of jitters computed in the preceding step of “computing the signal jitters in a statistical way.” And in that sense, it appears that an essential step is missing in the claim because it has to be decided that the amount of signal jitters associated with each wander value must be decided first in order to determine “a wander value with the smallest signal jitters.”

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In summary, the scope of the claim is hard to understand because of lack of logical connection between the recited steps. A careful revision of the claim language, in accordance with the disclosure of the present invention, is strongly suggested to help to particularly point out and distinctively claim the inventive subject matter.

***Allowable Subject Matter***

6. Claims 1-4 would be allowable if rewritten or amended to overcome the objection, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KEVIN KIM  
PATENT EXAMINER

